

Homeowner's Guide to Grinder Pumps

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Grinder Pumps Support Sewer Systems

The low pressure sewage system servicing your home is part of the larger Anne Arundel County sewage collection system. Every day of the year hundreds of miles of pipe carry sewage to the seven reclamation facilities operated by the Department of Public Works.

The grinder pump in your yard is an important part of the system. The Department of Public Works uses several types of collection systems. Each has been designed to best serve the customer in a particular area. Topography, the physical features of the earth, plays an important role in design selection. In areas where sewage cannot flow downhill by gravity, pumps are used to force sewage through the lines to the reclamation facility.

If you have a grinder pump, your home is one served by a pressure system, which uses a grinder pump to grind the sewage from your home (much like the garbage disposal in your kitchen) and push the sewage through small plastic pipes to the larger lines in the street

Low pressure sewage systems are economical solutions for areas of the county which cannot be served by gravity lines. However, a grinder pump system does require that the homeowner take a more active role than required for a property served by gravity.

It is important that you know how your home sewer system operates and that you notify the Department of Public Works emergency dispatcher if a problem occurs. If the unit servicing your home is owned by the County, our technicians can provide maintenance and service at no additional cost to you. If it is a privately maintained system, you must contact your plumber or the supplier of the pump, Freemire & Associates at 410 768-8500, to resolve the problem.

County owned grinder pumps are placed in a 7 1/2 foot utility easement to provide access for maintenance and service. It is not advisable to plant flowers or shrubs or place such items as fences, decorative pilings, fish ponds, etc. within the easement as damage to the grinder pump, underground electrical or piping system may occur. The County will not be responsible for any damage to landscaping or items placed within the easement while performing any maintenance function.

Electric power and alarm wires are buried under the ground between the control panel and the tank. Before digging in the area, call to have a technician locate the lines.

Older grinder models have a small breather vent located on the side of the tank, just below the cover. It is important to keep this vent open and free of debris, such as mulch or grass, for the unit to remain operational. It is also helpful to have the ground sloped away from the tank so water will not pool and enter the vent rendering the unit operable.

If your home is new construction and less than one year old, then your grinder pump is still under warranty through your builder. Any problems you experience with the grinder pump system during that period should be referred to the builder or his representative.

With your cooperation, your low pressure system will provide many years of safe, reliable service. Please take a few moments to read the following information to insure the proper functioning of your pump.

If the Alarm Sounds . . .

If there is a grinder pump failure, the tank which contains the pump will become too full. An alarm horn and light located in the alarm box on the outside of your home will automatically turn on. You should . . .

- Discontinue water use to prevent overflows.
- Turn off the alarm by depressing
- the alarm light on the front of the alarm box. The alarm horn should silence but the light will remain on until the grinder pump is repaired.

- Wait fifteen minutes before taking further action. A high level of water usage will sometimes cause the alarm to come on. This situation is self correcting. If the pump is operating correctly, the wet well will automatically be pumped down and the alarm light will turn off.
- If the alarm light is still on after fifteen minutes, call our 24-hour emergency dispatcher at 410 222-8400. The dispatcher will notify you if your system is privately maintained, in which case, you must contact a plumber or the supplier of the pump, Freemire and Associates at 410 768-8500.
- Never attempt to open the tank cover or the electrical panel box. CAUTION: Electrical shock or damage to the system may occur.

County emergency crews are on duty 24 hours a day, seven days a week and will respond promptly.

Protect Your Pump

The grinder pump can handle any wastewater that is normally discharged to the sewer from the kitchen, bathroom or laundry. Some chemicals and materials may cause operating problems or safety hazards. It is advisable to check labels on chemicals prior to their disposal. Never connect a sump pump to the grinder pump.

CAUTION: Never put any of the following materials into sinks, toilets or drains:

- Glass, metal, wood, seafood shells
- Diapers, socks, rags or cloth of any kind
- Plastic objects (toys, eating utensils, etc.)
- Any strong chemical, toxic, caustic, or poisonous substance
- Degreasing solvents
- Any explosive or flammable material
- Gasoline, kerosene, fuel oil, paint thinner, antifreeze
- Lubricating oil or grease
- Cooking fat (lard, oil, grease)
- Hair clippings

These materials may clog your home system or create unsafe conditions in your lines and tank.

Nuts and Bolts: Technical Details

A fiberglass or high density polyethylene sewage holding tank has been installed underground on your property and a sewage grinder pump is housed in the tank. The tank cover is round and is the only part that shows above the ground. All of the wastewater from your home flows into the buried tank. When the tank fills to a present level, the grinder pump automatically turns on, grinds the waste, forces it out of the tank and into the sewage system.

The grinder pump normally will run for one or two minutes and will automatically turn off when the tank has been emptied. The pump is programmed to operate in cycles, rather than continuously. Cycles are determined by the amount of water used, usually after 20 gallons has entered the tank. During a usual day, the grinder pump will turn on and off to empty the tank 20 to 30 times.

At a panel box near your electric meter on the outside wall of your home. However, some are located on a panel inside the home. Grinder pump electricity charges are estimated to be less than a dollar per month and will be included on your monthly electric bill. The cost of electricity is paid by you, not the County.

In Case of Power Failure

If there is a power failure which affects your home, your grinder pump will also experience a loss of power and not be able to operate. The grinder pump tank has a certain amount of holding capacity, but interior water use should be severely limited until power has been restored.

While on Vacation

If you are going to be away from home for more than seven days, the following steps should be taken to minimize any stagnating odors.

First, run water from an inside tap long enough for the grinder pump to begin working. After the pump turns on, turn the water off. The grinder pump will run until the tank is empty and will shut off. This process will cleanse the pump and leave it filled with a minimum of clean water. Always leave the electrical power on. This allows the heating element inside the pump to operate which helps eliminate condensation and freezing.

By following these guidelines, you can ensure that your low pressure system will provide many years of safe, reliable service.